

DEVAL L. PATRICK GOVERNOR TIMOTHY P. MURRAY LIEUTENANT GOVERNOR JUDYANN BIGBY, MD SECRETARY JOHN AUERBACH

COMMISSIONER

## The Commonwealth of Massachusetts

Executive Office of Health and Human Services

Department of Public Health

William A. Hinton State Laboratory Institute

William A. Hinton State Laboratory Institute 305 South Street, Jamaica Plain, MA 02130

Mary Szulborski, ADA

Suffolk County District Attorney's Office By e-mail

September 9, 2011

Re: Comm. v.

State Lab nos.

ADA Szulborski,

Please find below a discovery package for the case noted above. The material is collated in the following manner:

- 1) the c.v.'s of the chemists
- 2) the Evidence Office receipt to the Boston Police
- 3) the inventory control cards
- 4) the Drug Powder Analysis Forms
- 5) the gas chromatography/mass spectrometry (gc/ms) data

I was the custodial chemist responsible for the chain of custody, weights and the preliminary analysis of the exhibit. Kate Corbett operated the gc/ms for the confirmatory analysis.

If you need further clarification of this material, call me directly at (617) 983-6627.

Sincerely,

Michael Lawler Senior Chemist

Cc: A. Dookhan

#### Curriculum Vitae

#### Michael Lawler

#### Education:

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975 Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

#### Experience:

1990-present currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits. Lab Safety Officer.

2005-2008 lecturer in chemistry, Curry College, Milton, Ma.

1988-1990 New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

1983-1988 Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

1982-1983 NENS hypothyroid assay technologist with Tuft's University

1979-1981 Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

## Additional education and special training

Drug Analysis, completed six week training course by senior staff within the

Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court

Current Drug Trends - Multijurisdictional Drug Task Force Academy

CDC course in antibiotic resistance CDC course in cell culture

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

#### Journal Publications

<u>Screening</u>, 1992, 1:34-37; Lawler, M., Frederick, S., Rodriguez-Anza, S., Wolf, B., Levy, H., Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases

<u>Genetic Screening</u>, 1990, 11-18, Mitchell, M., Lawler, M., Walraven, C., Hermos, R., To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?

<u>The Journal of Pediatrics</u>, 116: 78-83, Secor-McVoy, J., Lawler, M., Schmidt, M., Ebers, D., Hart, P., Pettit, D., Blitzer, M., Wolf, B., Partial Biotinidase Deficiency: Clinical and Biochemical Features

#### **Professional Affiliations**

Northeastern Association of Forensic Scientists (NEAFS) since 2005

#### Awards

Theobald Smith Education Grant for graduate studies

## Curriculum Vitae

Kate A. Corbett

### Education

Bachelor of Science Degree, CHEMISTRY May 2003 MERRIMACK COLLEGE

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

## **Employment**

Chemist II State Laboratory Institute (March 2008-Present)

Massachusetts Department of Public Health

Drug Analysis Laboratory

- > Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- > Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws (1) Coperate analytical instrumentation, microscopes and balances for forensic
- drug analysis and the second of the second o

Chemist I State Laboratory Institute (2005-March 2008)

are to 其外中 \$46. 计自己进入的证法。

Massachusetts Department of Public Health

Drug Analysis Laboratory

- > Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation for the purpose of performing forensic drug analysis : \*\* \*\*
- Successfully-completed an eight week training course in the analysis of drugs. conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory 经格价值 排放 化光光线
- > Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005 and the control of the

Research Associate (September 2003 + August 2005)

SENSOR TECHNOLOGIES, INC - Shrewsbury, MA

- > Prepared chemistries used in making sensor beads
- > Generated and examined sensors employing fluorescence spectroscopy
- Performed protein, dye and sugar assays using UV/VIS spectrophotometry
- Carried out titrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

Intern (March 2003 - August 2003)

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- > Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units



CC #_		 	 
ВООК#_	65		A. A
PAGE #	42		
DESTRUC	TION #		

Day Day 5 all	DESTRUCTION #		
District/Unit DW D-4  Name & Rank of Arresting Officer Robe	H Walsh, P.O.	1D# 10794	È
DEFENDANT'S NAME	ADDRESS	CITY	STATE
		LABUS	E ONLY
DESCRIPTION OF ITEMS SUBMITTED	GROSS QUANTITY	GROSS WEIGHT	ANALYSI NUMBEF
caux cocaine	3 P/B's	1,979	e casalina
crack cocaine	31 P/18'5	9,549	
Marijuana CIVIL	1º18		
			V - V - 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
be completed by ECU personnel only			
ame and Rank of Submitting Officer	Depina	1D# 120	16

Name and Rank of Submitti	ing Officer PO LLEP	Cna 10#_	12015
Received by	<u>lo</u>	Date	6-23-10
		ECU Control #	

No.			Date Analyzed:
City:	Boston	D.C.U. Police	e Dept.
Officer:	P.O. MIL	A DEPINA	,
Def:			
Amount:			Subst: SUB
No. Cont:	3	Cont: pb	
Date Rec'd:	06/23/20	110	No. Analyzed:
Gross Wt.:	1.97		Net Weight: 0, ( )
			# Tests: GM
		C 3	

Prelim: COCAME Findings: COCAME

No.
City: Boston D.C.U. Police Dept.
Officer: P.O. MILA DEPINA

Def:
Amount: Subst: SUB

No. Cont: 31 Cont: pb

Date Rec'd: 06/23/2010

Gross Wt.: 9.54

Prelim: Collinary

Findings: Collinary

Prelim: Collinary

Findings: Collinary

Prelim: Collinary

Prelim: Collinary

Findings: Collinary

Prelim: Collinary

Prelim

GC/MSED GOTZULO.S

> GC/MSD GO72610.5

DRUG POWDER ANALYSIS FORM	7/27/10
SAMPLE#	OSTADOL ANALYST MX
No. of samples tested:	Evidence Wt.
PHYSICAL DESCRIPTION:	Gross Wt ( ): 0, 4097
3 pb u/substane	Gross Wt ( ):
J. Po T ( 00 SOU T	Pkg. Wt:
	0AAUSO 2334 7-22-10 20g = 20,000lg 10g = 10,0000g 5g = 5,000lg 1g = 0,9998g
PRELIMINARY TESTS Spot Tests H Cobalt Thiocyanate Marquis Froehde's Mecke's	Microcrystalline Tests  Gold Chloride  TLTA (PFH)  OTHER TESTS
PRELIMINARY TEST RESULTS  RESULTS  DATE	RESULTS CONFIRMATORY TEST  RESULTS ACCOUNTS
,	OPERATOR

# DRUG POWDER ANALYSIS FORM

7/27/10

SAMPLE # AGENCY &	5 Paul M ANALYST MR
No. of samples tested:	Evidence Wt. 9.54
PHYSICAL DESCRIPTION:	Gross Wt ( ): 5, 1445
31pb m/sub	Gross Wt ( ):
	Pkg. Wt: 4,3245
	OHAUS 2334 7-23-10
	20 p= 20,00018 (
	5, = 57000lp 10 = 0,9999
PRELIMINARY TESTS Spot Tests	Microcrystalline Tests
Cobalt H C X 4	Gold X 4 Chloride
Marquis	TLTA PICHTO
Froehde's	OTHER TESTS
· ·	
PRELIMINARY TEST RESULTS	GC/MS CONFIRMATORY TEST
RESULTS	RESULTS CICCAM
DATE	MS KAC
	DATE 7/2-7/10

# samples to

		Weight	Net Weight	#	Gross Welght	Packet Weight	Net Welght
	0.1715+		011715	26			
	0·1426+ 0·1194+		0.1426	27			
	0·1248÷		0.1194	28			
	0:3583÷		0.1248	29	·		
	4∘= 0∘1395*			30			
	•			31		·	
	0∘1395× - 31∘= _			32			-
	0°3245*			33			,
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24				49			
25				50			
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1/AC 9/9/11

Information from Data File:

File Name : E:\SYSTEM7\07 26 10\733141.D

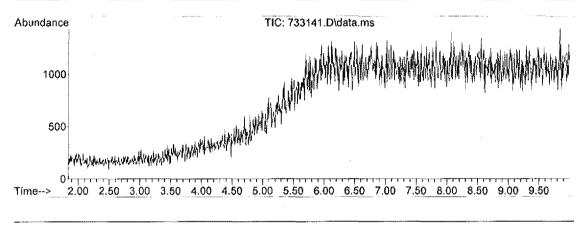
Operator : ASD

Date Acquired : 26 Jul 2010 22:22

Sample Name : BLANK

Submitted by

Vial Number : 1 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time

Area

Area

Ratio %

\*\*\*NO INTEGRATED PEAKS\*\*\*

File Name : E:\SYSTEM7\07 26 10\733142.D

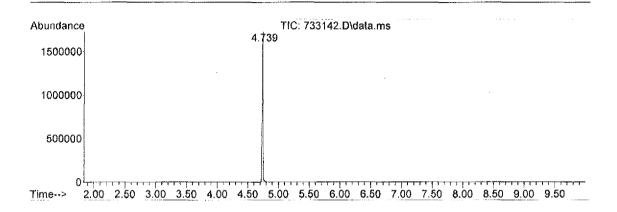
Operator : ASD

Date Acquired : 26 Jul 2010 22:34

Sample Name : COCAINE STD

Submitted by

Vial Number 42 AcquisitionMeth: DRUGS.M : RTE Integrator



Ret. Time	Area	Area %	Ratio %
4.739	1563758	100.00	100.00

File Name : E:\SYSTEM7\07\_26\_10\733142.D

Operator : ASD

Date Acquired : 26 Jul 2010 22:34

Sample Name : COCAINE STD

Submitted by : Vial Number : 42
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80

C:\Database\NIST05a.L

Minimum Quality: 80

C:\Database\PMW\_TOX2.L

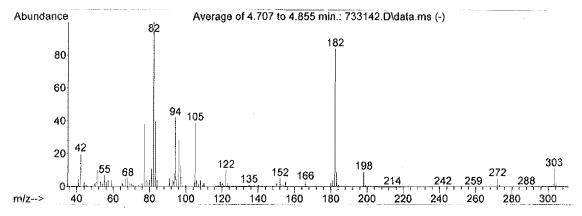
PK# RT Library/ID CAS# Qual

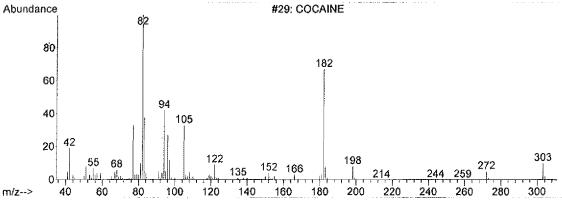
1 4.74 C:\Database\SLI.L

COCAINE

000050-36-2

99



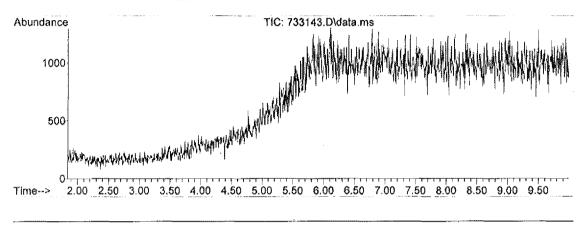


File Name : E:\SYSTEM7\07 26 10\733143.D

Operator : ASD

Date Acquired : 26 Jul 2010 22:47

Sample Name : BLANK
Submitted by : MGL
Vial Number : 2
AcquisitionMeth: DRUGS.M
Integrator : RTE



Ret. Time

Area

Area

Ratio %

\*\*\*NO INTEGRATED PEAKS\*\*\*

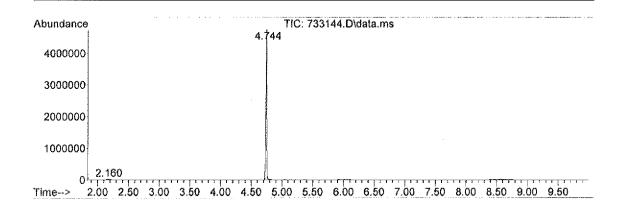
File Name : E:\SYSTEM7\07\_26\_10\733144.D

: ASD

26 Jul 2010 22:59

Operator
Date Acquired :

Submitted by : MGL Vial Number : 44 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %
2.160	115026		2.36
4.744	4875505		100.00

File Name : E:\SYSTEM7\07\_26\_10\733144.D

Operator : ASD

Date Acquired : 26 Jul 2010 22:59

Sample Name :
Submitted by : MGL
Vial Number : 44
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L

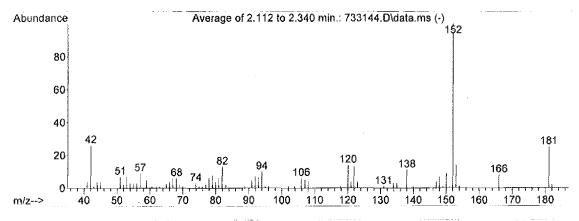
Minimum Quality: 80

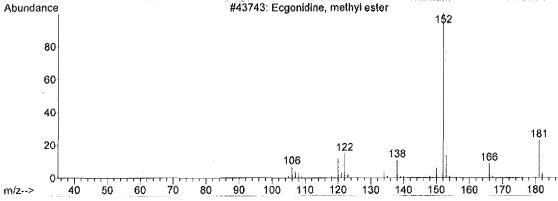
C:\Database\NIST05a.L

Minimum Quality: 80

C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	2.16	C:\Database\NIST05a.L Ecgonidine, methyl ester 2-Carbomethoxy-8-methyl-8-azabicycl 2,6-Dimethoxytoluene	127379-24-2 043021-26-7 005673-07-4	94 70 43





File Name : E:\SYSTEM7\07\_26\_10\733144.D

Operator : ASD

Date Acquired : 26 Jul 2010 22:59

Sample Name

Submitted by : MGL Vial Number : 44 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80

CAS#

C:\Database\NIST05a.L

Minimum Quality: 80

C:\Database\PMW\_TOX2.L

PK# RT Library/ID

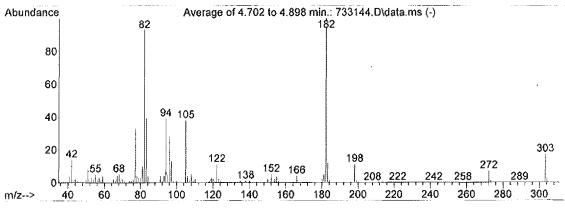
Qual

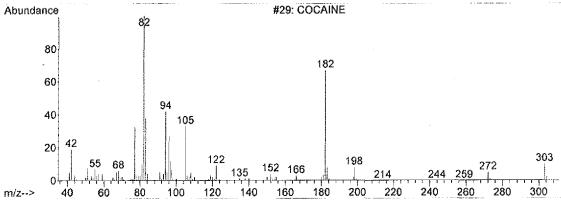
4.74 C:\Database\SLI.L

COCAINE

000050-36-2

99



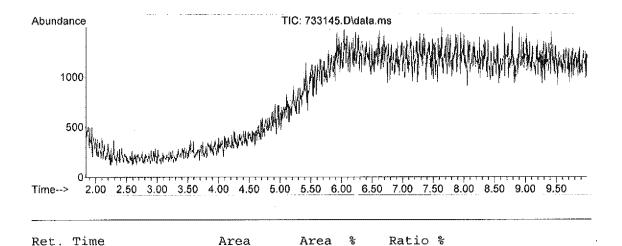


File Name : E:\SYSTEM7\07\_26\_10\733145.D

Operator : ASD

Date Acquired : 26 Jul 2010 23:12

Sample Name : BLANK
Submitted by : MGL
Vial Number : 2
AcquisitionMeth: DRUGS.M
Integrator : RTE



\*\*\*NO INTEGRATED PEAKS\*\*\*

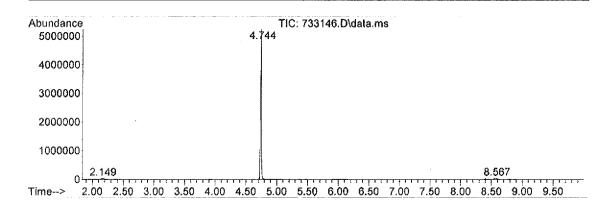
File Name : E:\SYSTEM7\07\_26\_10\733146.D

Operator : ASD

Date Acquired : 26 Jul 2010 23:25

Sample Name :

Submitted by : MGL Vial Number : 46 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %	
2.149	146214	2.38	2.49	
4.744	5862570	95.33	100.00	
8.567	141097	2,29	2.41	

File Name : E:\SYSTEM7\07\_26\_10\733146.D

Operator : ASD

Date Acquired 26 Jul 2010 Sample Name

Submitted by : MGL Vial Number 46 AcquisitionMeth: DRUGS.M Integrator : RTE

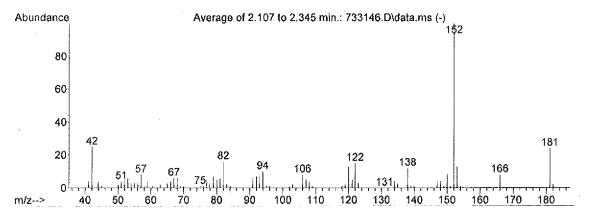
Search Libraries: C:\Database\SLI.L

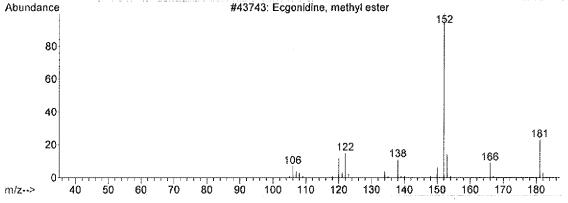
Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW\_TQX2.L

PK#	RT	Library/ID	CAS#	Qual
1	2.15	C:\Database\NIST05a.L Ecgonidine, methyl ester 2-Carbomethoxy-8-methyl-8-azabicycl 3,5-Dimethoxyphenethylamine	127379-24-2 043021-26-7 003213-28-3	97 95 49





: E:\SYSTEM7\07\_26\_10\733146.D File Name

: ASD Operator

Date Acquired 26 Jul 2010 23:25

Sample Name Submitted by MGL Vial Number 46

RT

PK#

AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L C:\Database\PMW TOX2.L

Library/ID CAS#

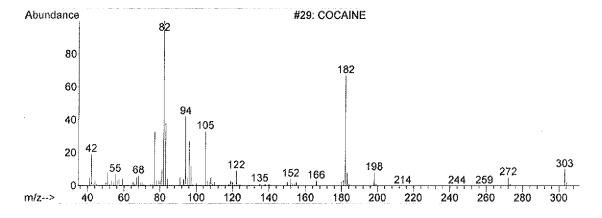
2 4.74 C:\Database\SLI.L

COCAINE

000050-36-2 99

Qual

Average of 4.691 to 4.898 min.: 733146.D\data.ms (-) Abundance 82 80 60 40 94 105 303 20 42 122 198 55 67 152 166 138 208 222 282 80 120 140 180 m/z--> 40 60 100 160 200 220 240 260 280 300



File Name : E:\SYSTEM7\07\_26\_10\733146.D

Operator : ASD

Date Acquired : 26 Jul 2010 23:25

Sample Name : MGL

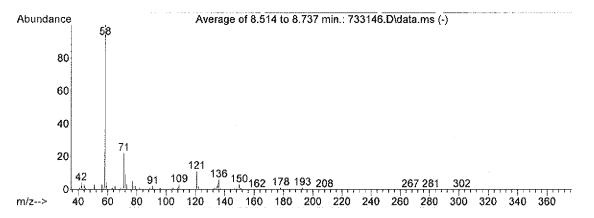
Vial Number : 46 AcquisitionMeth: DRUGS.M Integrator : RTE

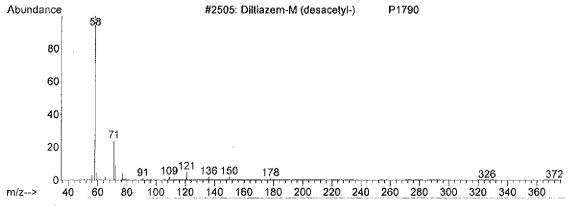
Search Libraries: C:\Database\\$LI.L

C:\Database\SLI.L Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 80

C:\Database\PMW TOX2.L

PK#	RT	Library/ID	CAS#	Qual
3	8.57	C:\Database\PMW_TOX2.L	000000 00 0	DO.
		Diltiazem-M (desacetyl-) Diltiazem	000000-00-0 042399-41-7	72 56
		BDB	000000-00-0	50





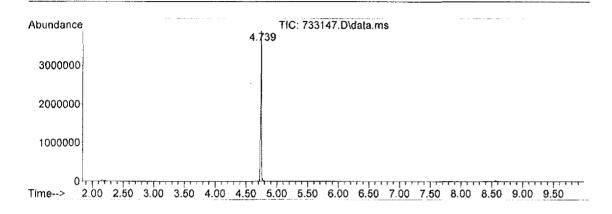
: E:\SYSTEM7\07\_26\_10\733147.D File Name

Operator : ASD

Date Acquired : 26 Jul 2010 23:37

Sample Name

: : MGL Submitted by Vial Number : 47 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	
4.739	3787672		

File Name : E:\SYSTEM7\07\_26\_10\733147.D

: ASD Operator

26 Jul 2010 Date Acquired 23:37

Sample Name Submitted by : MGL Vial Number 47 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 80

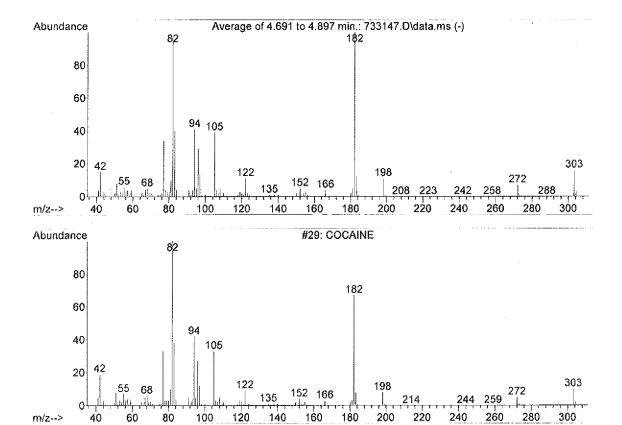
C:\Database\PMW TOX2.L

PK# CAS# RTLibrary/ID Qual

1 4.74 C:\Database\SLI.L

COCAINE

000050-36-2 99



File Name :  $E:\SYSTEM7\07\_26\_10\733148.D$ 

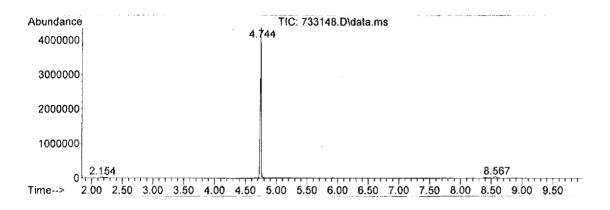
Operator : ASD

Date Acquired : 26 Jul 2010 23:50

Sample Name : Submitted by : M Vial Number :

: MGL : 48 : DRUGS.M

AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %	
2.154	106659	2.20	2.30	
4.744	4641048	95.52	100.00	
8.567	111251	2.29	2.40	

File Name : E:\SYSTEM7\07\_26\_10\733148.D

Operator : ASD

Date Acquired 26 Jul 2010 23:50

Sample Name Submitted by MGL

Vial Number 48 AcquisitionMeth: DRUGS.M

Integrator : RTE

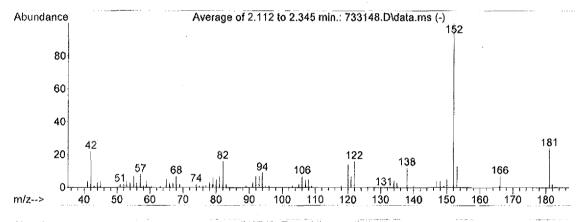
Search Libraries: C:\Database\SLI.L

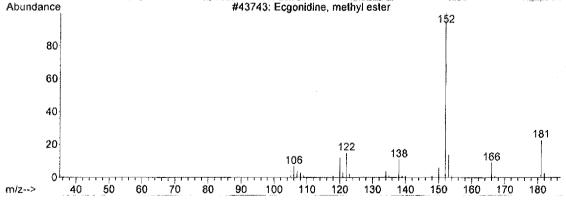
Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW\_TOX2.L

PK# RT		RT	Library/ID	CAS#	Qual	
	1	2.15	C:\Database\NIST05a.L Ecqonidine, methyl ester	127379-24-2	94	
			2-Carbomethoxy-8-methyl-8-azabicycl		70	
			2,6-Dimethoxytoluene	005673-07-4	47	





: E:\SYSTEM7\07\_26\_10\733148.D File Name

Operator : ASD

Date Acquired 26 Jul 2010 23:50

Sample Name

RT

PK#

: MGL Submitted by Vial Number 48 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW\_TOX2.L

CAS#

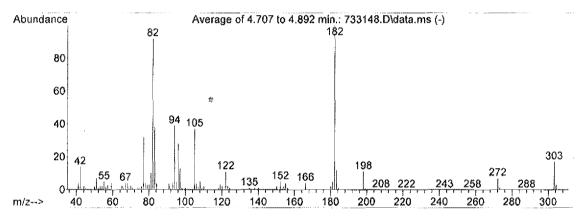
2 4.74 C:\Database\SLI.L

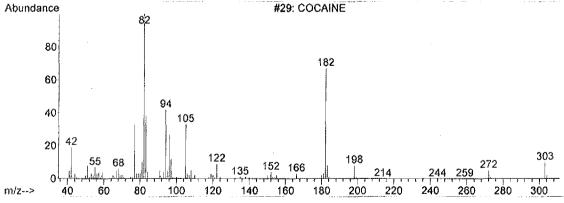
COCAINE

Library/ID

99 000050-36-2

Qual





File Name : E:\SYSTEM7\07\_26\_10\733148.D

Operator : ASD

Date Acquired : 26 Jul 2010 23:50

Sample Name : MGL
Submitted by : MGL

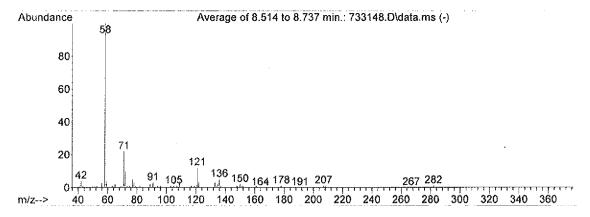
Vial Number : 48
AcquisitionMeth: DRUGS.M
Integrator : RTE

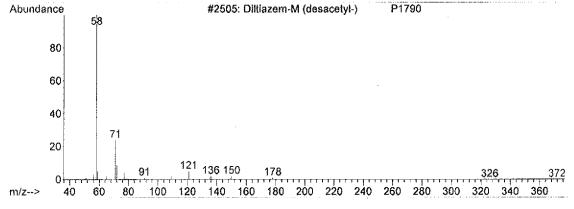
Search Libraries: C:\Database\SLI.L

C:\Database\SLI.L Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 80

C:\Database\PMW\_TQX2.L

	PK#	RT	Library/ID	CAS#	Qual
•	3	8.57	C:\Database\PMW_TQX2.L Diltiazem-M (desacetyl-) Diltiazem Lidocaine-M (desethyl-)	000000-00-0 042399-41-7 000000-00-0	72 64 40





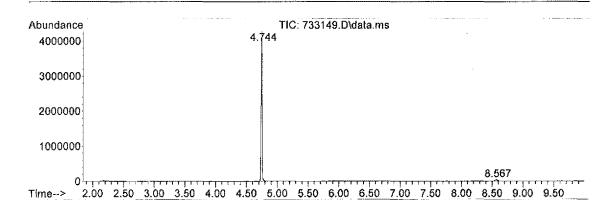
File Name : E:\SYSTEM7\07\_26\_10\733149.D

Operator : ASD

Date Acquired : 27 Jul 2010 00:02

Sample Name

Submitted by : MGL Vial Number : 49 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	Area %	Ratio %	
4.744 8.567	4570177 138171	97.07 2.93	100.00	

File Name : E:\SYSTEM7\07\_26\_10\733149.D

: ASD Operator

Date Acquired 27 Jul 2010 00:02

Sample Name Submitted by MGL Vial Number 49 AcquisitionMeth: DRUGS.M

: RTE Integrator

RT

PK#

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80 C:\Database\NIST05a.L Minimum Quality: 80

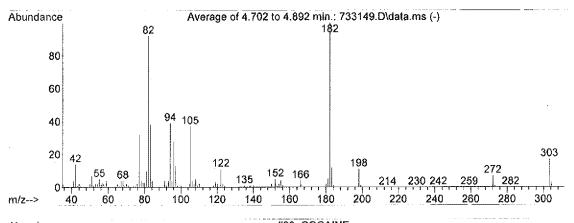
C:\Database\PMW\_TOX2.L

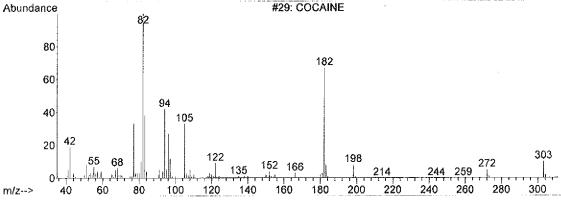
Library/ID CAS# Qual

4.74 C:\Database\SLI.L 1

COCAINE

000050-36-2 99





: E:\SYSTEM7\07\_26\_10\733149.D File Name

Operator : ASD

Date Acquired 27 Jul 2010 00:02

Sample Name

Submitted by MGL Vial Number 49 AcquisitionMeth: DRUGS.M Integrator RTE

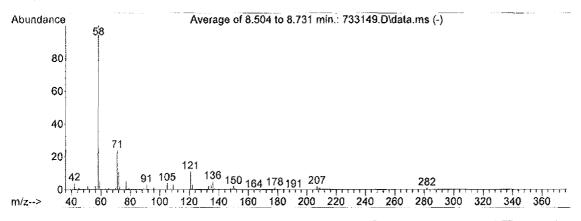
Search Libraries: C:\Database\SLI.L

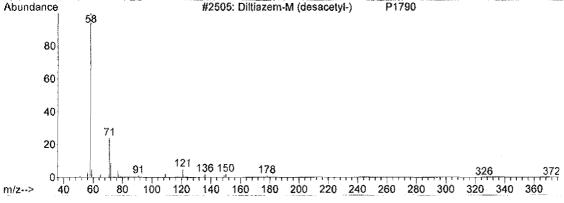
Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST05a.L

C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	8.57	C:\Database\PMW_TOX2.L Diltiazem-M (desacetyl-) Diltiazem-M (O-desmethyl-) AC Diltiazem	000000-00-0 000000-00-0 042399-41-7	72 56 56





#### Area Percent / Library Search Report

Information from Data File:

File Name : E:\SYSTEM7\07\_26\_10\733163.D

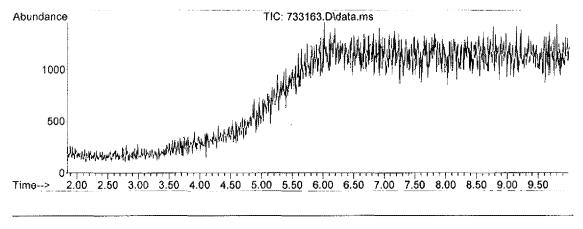
Operator : ASD

Date Acquired : 27 Jul 2010 2:59

Sample Name : BLANK

Submitted by

Vial Number : 2 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time

Area

Area

Ratio %

\*\*\*NO INTEGRATED PEAKS\*\*\*

File Name : E:\SYSTEM7\07\_26\_10\733164.D

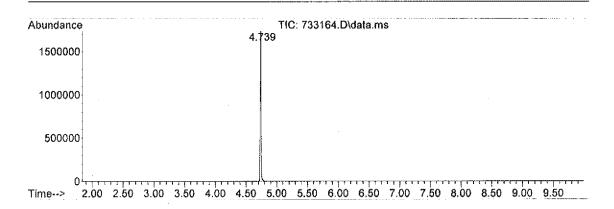
Operator : ASD

Date Acquired : 27 Jul 2010 3:12

Sample Name : COCAINE STD

Submitted by

Vial Number : 64 AcquisitionMeth: DRUGS.M Integrator : RTE



Ret. Time	Area	 Ratio %
4.739	1646815	100.00

File Name : E:\SYSTEM7\07 26 10\733164.D

Operator : ASD

Date Acquired : 27 Jul 2010 3:12

Sample Name : COCAINE STD

Submitted by

Vial Number : 64 AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L

Minimum Quality: 80

000050-36-2

99

C:\Database\NIST05a.L

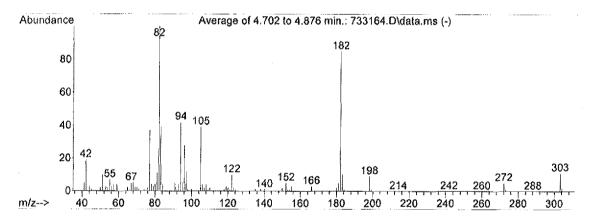
Minimum Quality: 80

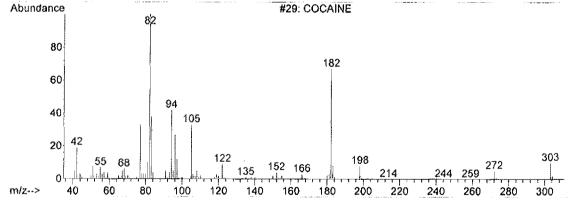
C:\Database\PMW\_TOX2.L

PK# RT Library/ID CAS# Qual

1 4.74 C:\Database\SLI.L

COCAINE





Last page..... ... no further data